REMARKS

Claims 1-28 remain in the application for reconsideration. These claims stand rejected under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §103(a).

Rejection under 35 U.S.C. §112, First Paragraph

The examiner rejected claims 1, 4-6, 17, 23, and 26-28 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the examiner objects to applicant's insertion of the limitation "based on historical short message usage of each relevant subscriber queue" in each of the independent claims. Without prejudice, applicant withdraws the insertion even though it is believed the specification adequately supports the limitation. See disclosure at page 13 of the specification where delivery statistics are provided to limit the number of messages that can be queued per scriber.

Accordingly, the rejection under 35 U.S.C. §112, first paragraph, should be withdrawn.

Objection to the Specification under 35 U.S.C. §132

The examiner objected to the specification allegedly because the previous amendment introduced "new matter." Traversal of the §112, first paragraph, rejection noted above should also resolve the rejection under §132 since the previous amendment was withdrawn without prejudice or disclaimer.

Rejection of the Claims under 35 U.S.C. §103(a)

The examiner rejected claims 1, 4-6, 17, 23, and 26-28 under 35 U.S.C. §103(a) as being unpatentable over LaPorta et al. (U.S. Pat. 5,959,543) ("LaPorta") in view of Frohman et al. (U.S. Pat. 5,418,835) ("Frohman"), and further in view of Holmes et al. (U.S. Pat. 6,134,432) ("Holmes").

The claims have been amended to better define over the cited art. The response herein distinguishes the amended claims over the disclosure of Frohman without conceding the other references show or suggest each and every element of the claims.

A background problem addressed by the invention concerns transmission and proliferation of short messages and bulk message through a message distribution center (MDC) that slow down SMPT gateway performance. Churned messaging is a noted prior art problem, which is described at pages 1-2 of the specification as follows:

> *All traffic is typically sent through an SMTP gateway, and thus information content, ads, etc., cannot be differentiated from higher priority `personal` content. Problems arising from this include:*
>
> > *Bulk information content can slow down and even jeopardize the carrier's SMTP Gateway performance;*
> > *Personal messages cannot be given a higher priority than bulk messages;*
> > *Bulk info content receives the same messaging parameters as personal messages, e.g., delivery receipts enabled, expiration date of 3-5 days, etc.;*
> > *The carrier cannot differentiate between bulk messages among various providers and personal mail for billing purposes;*
> > *Bulk senders deliver their content regardless of whether the device is on, and thus the carrier must handle message storage and retry attempts; and*
> > *Bulk senders will typically continue to deliver content to churned wireless subscribers, wasting network resources and interfering with reuse of mobile numbers.*
> > *There is a need for a technique using SMTP and/or other conventional protocols to enable an easy way for content providers to distribute and/or differentiate their information without requiring them to change technologies.* (underlining added)

Pages 5-6 of the disclosure describes message management and handling of subscriber messages in multiple subscriber queues, acknowledging a need to limit the number and/or size subscriber queues and messages contained therein. Particular attention is drawn to the following disclosure:

> *In accordance with the principles of the present invention, a particular wireless carrier 130 assigns a value for the maximum number of outstanding messages for a particular subscriber. This maximum number of outstanding messages can be used to establish a queue threshold. Thus, if one or more new messages cause the queue threshold to be exceeded, then the oldest messages may be deleted first from the particular subscriber queue 150 to make room for the new message(s). Of course, the subscriber queue 150 may be expanded in size as desired.*

> *To provide protection from constantly growing subscriber queues 150, other rules may be established by the wireless carrier 130 to allow automatic deletion of particular messages from the subscriber queue 150.* (underlining added)

In light of the problem addressed, applicant amended claim 1 to provide that excess messages are automatically deleted from the subscriber message queues after reaching a certain threshold. Frohman does not encounter the "churning problem" or a "bulk messaging problem" that needs to be dealt with and thus, message deletion is not believed to be disclosed. In particular, claim 1 in relevant part, has been amended to recite:

> *a database having a plurality of subscriber queues ...;*
> *an assignment module to individually assign each of said plurality of subscriber queues a maximum number of short messages that said plurality of subscriber queues can store;*
> *an automatic deletion module to delete messages from said subscriber queues when said maximum number is exceeded in order to make room in said database for other messages;* (amendatory portion underlined)

The amendatory language of claim 1 addresses the message proliferation problem by "automatically deleting messages from the subscriber database in order to make room for other messages." Frohman, on the other hand, is not at all concerned with the database storage capacity problem because, as he clearly states a col. 2, lines 21-25 (upon which the examiner relies), Frohman's "older" messages are converted to voice mail presumably for storage and subsequent access by a subscriber. Thus, Frohman's "database" is not freed up for storage of other messages.

Accordingly, the combined teachings of LaPorta Frohman and Holmes fail to teach or suggest the invention of claim 1. The rejection of claim 1 under 35 U.S.C. §103(a) should be withdrawn.

Independent claim 17 recites language that addresses the same or similar problem address by claim 1. Specifically, the relevant distinctive language of claim 17 includes:

> *placing said short message in at least one of a plurality of subscriber queues of a subscriber database that are accessed before delivery to a wireless*

carrier's subscriber message delivery network, said plurality of subscriber queues each corresponding to a different subscriber in said wireless carrier's network;

individually assigning each of said plurality of subscriber queues a maximum number of short messages that said plurality of subscriber queues can store;

automatically deleting messages from said subscriber queues when said maximum number is exceeded in order to make room in said subscriber database for other messages; (amendatory language underlined)

Again, the invention of claim 17 addresses message proliferation problem by automatically deleting messages from the subscriber queues after a maximum assigned number is reached. Frohman does not address this problem and the combined teachings of LaPorta Frohman and Holmes fail to teach or suggest the invention of claim 17, as amended. The rejection of claim 17 under 35 U.S.C. §103(a) should thus be withdrawn.

Independent claim 23 has also been amended to address a message overload problem. In relevant part, claim 23 recites:

means for storing said short messages in a database that includes a plurality of subscriber queues;

means for placing' said short message in at least one of a plurality of said subscriber queues accessed before delivery to a wireless carrier's subscriber message delivery network, said plurality of subscriber queues each corresponding to a different subscriber in said wireless carrier's subscriber message delivery network;

means for individually assigning each of said plurality of subscriber queues a maximum number of short messages that said plurality of said subscriber queues can store;

means for automatically deleting messages from said subscriber queues when said maximum number is exceeded in order to make room in said subscriber database for other messages (amendatory language underlined)

The combined teachings of Frohman, LaPorta and Holmes fail to teach or suggest the invention of claim 23, as amended. Thus the rejection of claim 23 under 35 U.S.C. §103(a) should be withdrawn.

Independent claim 5 was also amended to recite:

5. The message distribution center according to claim 1, wherein:

said maximum number is a predetermined maximum number of short messages in each of said plurality of subscriber queues that is determined according to delivery statistics. (amendatory portion underlined)

As mentioned above in connection with traversing the "new matter" objection to the specification, the maximum number of messages permitted in a subscriber queue may be determined according to delivery statistics. Support may be found at page 13 of applicant's disclosure. Because, among other things, claim 5 depends from claim1, the rejection applied thereto under 35 U.S.C. §103(a) is traversed for reason stated with respect to claim 1.

The rejection of the remaining claims, which depend from claim 1, 17, or 23, under 35 U.S.C. §103(a) is traversed for reason including those set forth with respect to their base clais.

Conclusion

Reconsideration is requested during continued examination.

A request for continued examination together with the required fee, accompanies this paper.

The Notice of Appeal is withdrawn without prejudice or disclaimer.

Respectfully submitted,

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